

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
24 July 2003 (24.07.2003)

PCT

(10) International Publication Number
WO 03/060159 A2

(51) International Patent Classification⁷: **C12Q 1/68**

(21) International Application Number: **PCT/GB03/00195**

(22) International Filing Date: 15 January 2003 (15.01.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: *15 July 04*
0200828.2 15 January 2002 (15.01.2002) GB
60/348,396 16 January 2002 (16.01.2002) US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:

US US 60/348,396 (CIP)
Filed on Not furnished

(71) Applicant (for all designated States except US): **MAT-FORSK** [NO/NO]; Norwegian Food Research Institute, Osloveien 1, N-1430 Ås (NO).

(71) Applicant (for UG only): **GARDNER, Rebecca** [GB/GB]; Frank B. Dehn & Co., 179 Queen Victoria Street, London EC4V 4EL (GB).

(72) Inventors; and

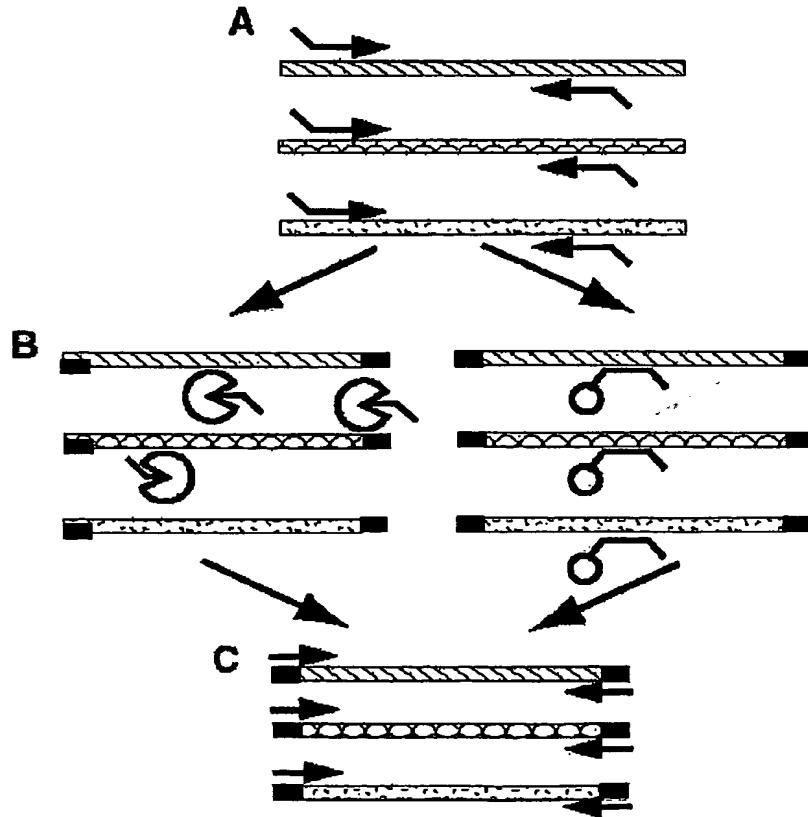
(75) Inventors/Applicants (for US only): **RUDI, Knut** [NO/NO]; Jonas Wessels vei 29, N-1540 Vestby (NO). **HOLCK, Askild** [NO/NO]; Askeveien 34, N-1430 Ås (NO).

(74) Agent: **FRANK B. DEHN & CO.**, 179 Queen Victoria Street, London EC4V 4EL (GB).

(81) Designated States (national): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,

[Continued on next page]

(54) Title: METHODS OF NUCLEIC ACID AMPLIFICATION



(57) Abstract: The present invention provides a method of simultaneously amplifying a plurality of target sequences within sample nucleic acid which comprises: (a) contacting said sample nucleic acid with one or more primer pairs under conditions which allow hybridisation of the primers to the sample nucleic acid, each primer having a bipartite structure A-B wherein part A is specific for a particular target sequence within the sample nucleic acid and part B is a constant sequence which is common to all primers or is common amongst all forward primers with a different sequence common amongst all reverse primers; (b) performing a first amplification reaction; (c) degrading the bipartite primers or separating them from the amplification products of the first amplification reaction; (d) contacting the amplification products from the first amplification reaction with primers which comprise part B of the bipartite primers or a nucleotide sequence which is substantially identical to part B, under conditions which allow hybridisation of the primers to the amplification products; and (e) performing a second amplification reaction and kits for use in such methods.

WO 03/060159 A2